

Work Order ID 63689

November 10, 2010 8:59:07 AM

Page 1

Item ID: D3980-1

Accept

Revision ID:

Item Name: 429 Bearpaw

Start Date: 11/10/10 Start Qty: 10.00

Required Date: 11/15/10 Req'd Qty: 10.00

Reference:

Approvals:

Process Plan: *U*

Date:

Tooling:

Date:

Run Start

Stop

QC:

Date:

SPC (Y/N):

Date:

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

Draw Nbr

Revision Nbr

D3980

B

100

0.00



HAND FINISHING THERMOFORMING

Thermoform

Memo

0.00

Thermoforming Machine

Cut Blanks to fit frame size

Δ10

Ph
11/12/10

105

0.00



Dry Material

HandThermo

Memo

0.00

Hand Finishing Thermoforming

Dry Sheet as per QSI022 ALEXTRA

Temp: *240°F*

Time IN: *7:00 PM 10/11/13*

Time OUT: *7:00 AM 10/11/15*

X10

BB
10/11/15

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 63689

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Item ID: D3980-I

Accept



Setup Start



Revision ID:

Stop



Item Name: 429 Bearpaw

Start Date: 11/10/10 Start Qty: 10.00



Cust Item ID:

Required Date: 11/15/10 Req'd Qty: 10.00



Customer:

Reference:

Run Start



Approvals:

Process Plan:

Date:

Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID Tool # Plan Code Accept Qty Reject Qty Reject Number Insp. Stamp

110

0.00



Thermoform

THERMOFORMING MACHINE

Memo

0.00

Thermoforming Machine

Thermoform as per Dwg. D3980-I and Folio FTA078 using tool DT 9673

Dwg. Rev. B

Folio Rev. A

X10

Wh
10/11/15

120

0.00



QC

QC2- Inspect parts off machine FAI/FAIB

Memo

0.00

Quality Control

Visually inspect for proper formation of each part

X10

OK
10/11/15

130

0.00



QC

QC8- Inspect parts - second check

Memo

0.00

Quality Control

X10

B
10/11/15

W/O:		WORK ORDER CHANGES					
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NOTE: Date & initial all entries

Work Order ID 63689

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Reference:

Cust Item ID:

Customer:

Approvals:

Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run Start

Stop

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

140



Thermoform

Thermoforming Machine

HAND FINISHING THERMOFORMING

Memo

0.00

1-Trim & Drill to Finished Dimensions as per dwg D3980-1

2- Use wearplate jig DT9673 to transfer drill holes in bearpaw as per dwg and use 0.375" unibite to open holes to finish size.

3- Chamfer all holes on both sides using appropriate 0-flute countersink bit.

(X10)

Wh.
10/11/17.

PTO →

145



HandThermo

Hand Finishing Thermoforming

Anneal Material

Memo

0.00

Anneal trimmed & drilled product at 250 deg. F. for 75 minutes & allow to cool in oven.

Time In: 3:00pm 10/11/18

Oven Off: 4:15 AM 10/11/18.

Remove from oven
@ 2:00 am. 10/11/19

(X10)

Wh.
10/11/19.

w/o 63689
 DATE STEP
 10/11/17. 140.
 D3980-1

w/o change
 Procedure Change.
 Use newly made drilling jig
 DT 9196 to make pilot holes.
 for all. Weaplate, suction and
 mounting holes

DL 10/11/17
 Qty. 2.
 10/11/17

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Item ID: D3980-1

Accept



Setup Start



Revision ID:

Stop



Item Name: 429 Bearpaw

Start Date: 11/10/10 Start Qty: 10.00



Cust Item ID:

Required Date: 11/15/10 Req'd Qty: 10.00



Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

150

QC2- Inspect parts off machine FAI/FAIB

0.00



QC

Memo

0.00

Quality Control

Check dimensions to ensure conformity to drawing tolerances.

X 10

Wh
10/11/19

160

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

NO CRACKS FOUND
NO SHARP EDGES FOUND

8/10/11/22

X 10

170

Identify as per dwg & Stock Location:

0.00



Packaging

Memo

Thermoforming

0.00

Packaging

X 10

Wh
10/11/22

Work Order ID 63689

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Item ID: D3980-1

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Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run Start

Stop

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

180

QC21- Final Inspection - Work Order Release

0.00

QC

Memo

0.00

Quality Control

CK 10/11/23 MF
10-11-22

Picklist Print

November 10, 2010 8:59:06 AM

Page 1

Work Order ID: 63689

Parent Item: D3980-1

Parent Item Name: 429 Bearpaw



Start Date: 11/10/10

Required Date: 11/15/10

Start Qty: 10.00

Required Qty: 10.00

Comments: IPP Rev. A New Issue 2010/10/05 DL VERF:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M-ALXTRAB-S.300		Purchased	No			100	sf	421.9500	7.104	71.39698			



Alextra ET 0 .300 sheet



Location

Loc Qty

Loc Code

therm

421.95

113108

421.95

71.041 sq ft

DL-
10/11/15

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD		Work Order: 63689
Description: <u>HEAT PAW</u>		Part Number: <u>D3980-1</u>
Inspection Dwg: <u>3980</u> Rev: <u>B</u>		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST
THERMOFORMING SECTION

Description	Accept	Reject	Method of Inspection	Comments
Inside Radii less than "	✓			
Shape Definition	✓			
Texture Retention	✓			
Material imperfections such as bumps, cracks, voids, scratching	✓			

Measured by: <u>Oh</u>	Date: <u>10/11/15</u>
------------------------	-----------------------

TRIMMING SECTION

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
1.0	± 0.100	1.03"	✓			
0.10	± 0.030	0.11"	✓			
4.45"	± 0.10 to 6.48	4.5"	✓			
33.75"	Ref.	29.75"	✓			
26.68"	Ref.	26.7"	✓			
0.225"	MIN	0.249	✓			
0.200"	MIN	0.220"	✓			
0.175"	MIN.	0.236"	✓			

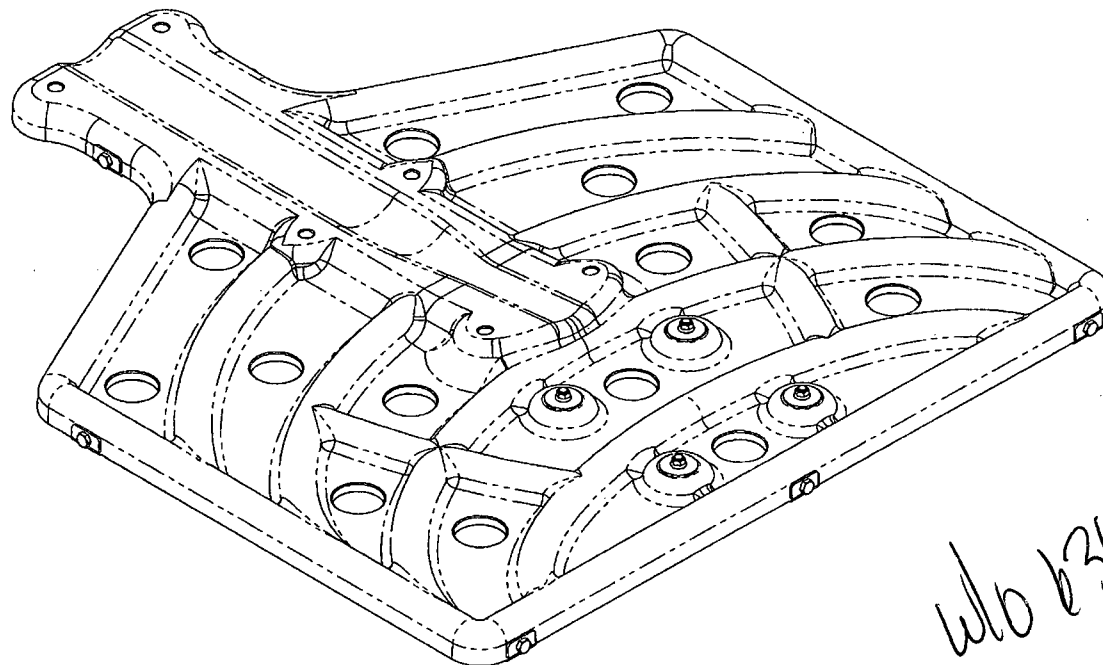
Measured by: <u>Oh</u>	Date: <u>10/11/15</u>
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Audited by: <u>BB</u>	Date: <u>10/11/16</u>
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Preliminary Approval:	Date:
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Rev	Date	Change	Revised by	Approved
B	10.04.14	Added preliminary approval	KJ	

10.04.14

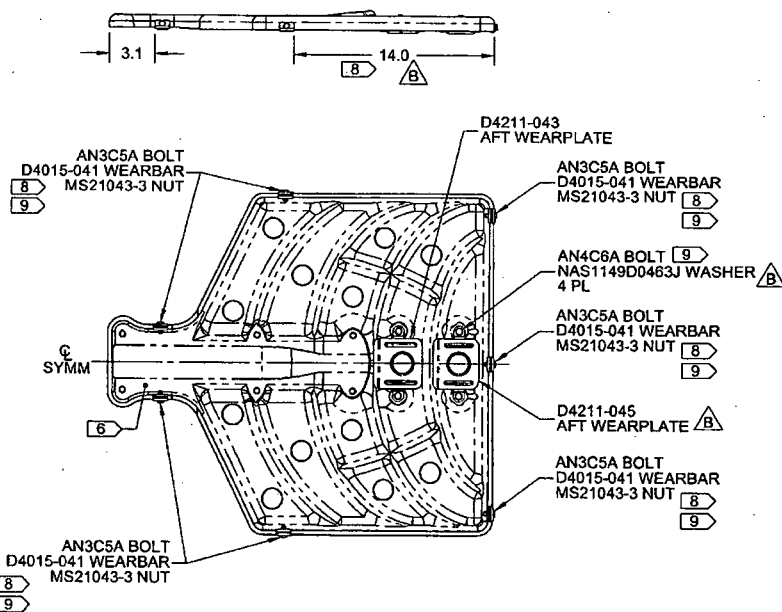
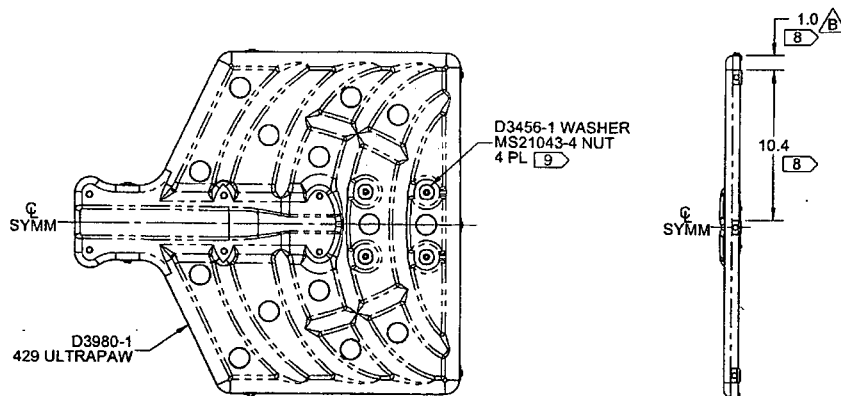


WLB 13684

RELEASED
2010-11-08

D3980-041 429 ULTRAPAW ASSY

B	ULTRAPAW WAS BEARPAW: ADDED D4211-045 WEARPLATE (D4211-043 WAS SEPARATED INTO TWO - ZN AS-2 AND D3-2); REVISED NOTE 8 (A3-3) AND SHADED AREAS (D5-3) BASED ON TR-D429-793-1 REV. A; ANMCSA BOLT WERE ANMCSA BOLT (B5-2 AND D3-2); CORRECTED DIMS AS PER DRILLING JIG (WAS 14.9 (C6-2) AND 0.70 (D4-2)); ADDED RELIEF ON ULTRAPAW NOSE (A6-3, A7-3 AND A8-3).		MB	10.10.25
A	NEW ISSUE		MB	10.09.28
REV.	DESCRIPTION		BY	DATE
DESIGN	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA DRAWING NO. D3980 REV. B SHEET 1 OF 3 TITLE 429 ULTRAPAW ASSY SCALE NTS COPYRIGHT © 2010 BY DART AEROSPACE LTD <small>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE REPRODUCED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD</small>			
DRAWN				
CHECKED				
MFG. APPR.				
APPROVED				
DE APPR.	DATE 10.10.25			



D3980-041 429 ULTRAPAW ASSY

ITEM	QTY -041	P/N	DESCRIPTION
	X	D3980-041	429 ULTRAPAW ASSY
1	4	D3456-1	WASHER
2	1	D3980-1	429 ULTRAPAW
3	7	D4015-041	WEARBAR
4	1	D4211-043	AFT WEARPLATE
5	1	D4211-045	AFT WEARPLATE
6	7	AN3C5A	BOLT
7	4	AN4C6A	BOLT
8	4	MS21043-4	NUT
9	7	MS21043-3	NUT
10	4	NAS1149D0463J	WASHER

D3980-041 NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3980-041" AND B/N "BXXXXX" PER QSI 044 6.4
- 7) WEIGHT: 8.53 lbs
- 8) LOCATE D4015-041 (ITEM 3) AS SHOWN AND TRANSFER DRILL Ø0.191 HOLE FROM D4015-041 TO D3980-1 ULTRAPAW AND FASTEN USING PRESCRIBED HARDWARE.
- 9) TORQUE:
AN3 NUTS = 15-20 in-lb
AN4 NUTS = 50-70 in-lb

DESIGN		DART AEROSPACE LTD	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO. D3980	REV. B
MFG. APPR.			SHEET 2 OF 3
APPROVED		TITLE	SCALE
DE APPR.		429 ULTRAPAW ASSY	NTS
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RELEASED
2010-11-03

